

**Amendments to the Abstract:**

Please replace the current abstract with the following replacement abstract:

~~The invention provides methods~~ Methods of introducing heterologous cells into fish are provided. After introduction cells remain viable, and in some instances proliferate, for sufficient time to conduct a variety of analyses on the heterologous cells or the fish or both. ~~Such methods are useful for screening potential drugs for toxicity toward introduced cells or for capacity to stimulate differentiation and/or proliferation of introduced cells.~~ Such methods are also useful, for example, for diagnosing the presence of small quantities of cancerous cells or pathogens in patient tissue samples. ~~Such methods are also useful for culturing cells for subsequent use in cell or tissue engineering.~~